## APPENDIX D
## INITIAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act of 1980, as amended ("RFA")[1] the Commission has prepared this present Initial Regulatory Flexibility Analysis ("IRFA") of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the *Further Notice of Proposed Rulemaking* portion of this item. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *Further Notice of Proposed Rulemaking* portion of this item provided in paragraph 69 The Commission will send a copy of this entire *Report and Order and Further Notice of Proposed Rulemaking* ("*Report and Order and Further Notice*"), including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration ("SBA").[2] In addition, the *Further Notice of Proposed Rulemaking* portion of this item and the IRFA (or summaries thereof) will be published in the Federal Register.[3]

**A. Need for, and Objectives of, the Proposed Rules.** Content providers have suggested that they should have the ability to make determinations about which new content protection and recording technologies may be used in connection with demodulator products under an ATSC flag-based redistribution control system Commenters have indicated that content providers should not be the sole arbiters of such decisions However, the record currently before the Commission is insufficient on this matter In order to ensure the connectivity and interoperability of Demodulator Products and peripheral devices, we are initiating the *Further Notice* to seek comment on the process and criteria by which new content protection and recording technologies can be evaluated and approved for use in this context The *Further Notice* also seeks comment on whether cable operators should be allowed to encrypt the digital basic tier in order to be able to give effect to the ATSC flag through cable operators' conditional access system The *Further Notice* also seeks comment on the interplay between an ATSC flag system and open source software for DTV applications, such as software defined radio

**B. Legal Basis.** The authority for this proposed rulemaking is contained in Sections 1, 2, 4(i) and (j). 303, 307, 309(j), 336, 337, 396(k), 403, 601, 614(b) and 624a of the Communications Act of 1934. 47 U S C §§ 151, 152, 154(i) and (j), 303, 307, 309(j), 336, 337, 396(k), 403, 521, 534(b) and 544a.

**C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply** The RFA directs the Commission to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by the proposed rules.[4] The RFA generally defines the term "small entity" as encompassing the terms "small business," "small organization," and "small governmental entity."[5] In addition, the term "small Business" has the same meaning as the term "small business concern" under the Small Business Act.[6] A small business concern is one which: (1) is

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[1] *See* 5 U S C § 603 The RFA, *see* 5 U S C §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub L No 104-121, Title II, 110 Stat 857 (1996)

[2] *See* 5 U S C § 603(a)

[3] *See* 5 U S C § 603(a)

[4] 5 U S C § 603(b)(3)

[5] 5 U S C § 601(6)

[6] 5 U S C § 601(3) (incorporating by reference the definition of "small business concern" in the Small Business Act, 15 U S C § 632) Pursuant to 5 U S C § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity (continued )

independently owned and operated, (2) is not dominant in its field of operation, and (3) satisfies any additional criteria established by the Small Business Administration ("SBA") [7]

**Television Broadcasting.** The Small Business Administration defines a television broadcasting station that has no more than $12 million in annual receipts as a small business [8] Business concerns included in this industry are those "primarily engaged in broadcasting images together with sound."[9] According to Commission staff review of the BIA Publications, Inc. Master Access Television Analyzer Database as of May 16, 2003, about 814 of the 1,220 commercial television stations in the United States have revenues of $12 million or less We note, however, that, in assessing whether a business concern qualifies as small under the above definition, business (control) affiliations[10] must be included. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. There are also 2,127 low power television stations (LPTV).[11] Given the nature of this service, we will presume that all LPTV licensees qualify as small entities under the SBA definition

In addition, an element of the definition of "small business" is that the entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation Accordingly, the estimate of small businesses to which rules may apply do not exclude any television station from the definition of a small business on this basis and are therefore over-inclusive to that extent Also as noted, an additional element of the definition of "small business" is that the entity must be independently owned and operated We note that it is difficult at times to assess these criteria in the context of media entities and our estimates of small businesses to which they apply may be over-inclusive to this extent.

**Cable and Other Program Distribution.** The SBA has developed a small business size standard for cable and other program distribution services, which includes all such companies generating $12 5 million or less in revenue annually [12] This category includes, among others, cable operators, direct broadcast satellite ("DBS") services, home satellite dish ("HSD") services, multipoint distribution services ("MDS"), multichannel multipoint distribution service ("MMDS"), Instructional Television

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for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register "

[7] 15 U S C § 632

[8] *See* OMB, North American Industry Classification System United States, 1997 at 509 (1997) (NAICS code 513120, which was changed to code 515120 in October 2002)

[9] OMB, North American Industry Classification System United States, 1997, at 509 (1997) (NAICS code 513120, which was changed to code 51520 in October 2002) This category description continues, "These establishments operate television broadcasting studios and facilities for the programming and transmission of programs to the public These establishments also produce or transmit visual programming to affiliated broadcast television stations, which in turn broadcast the programs to the public on a predetermined schedule Programming may originate in their own studios, from an affiliated network, or from external sources " Separate census categories pertain to businesses primarily engaged in producing programming *See id* at 502-05, NAICS code 51210 Motion Picture and Video Production code 512120, Motion Picture and Video Distribution, code 512191, Teleproduction and Other Post-Production Services, and code 512199, Other Motion Picture and Video Industries.

[10] "Concerns are affiliates of each other when one concern controls or has the power to control the other or a third party or parties controls or has to power to control both " 13 C F R § 121 103(a)(1)

[11] FCC News Release, "Broadcast Station Totals as of September 30, 2002 "

[12] 13 C F R § 121 201, NAICS code 517510 (formerly 513220) This NAICS code applies to all services listed in this paragraph

Fixed Service ("ITFS"), local multipoint distribution service ("LMDS"), satellite master antenna television ("SMATV") systems, and open video systems ("OVS"). According to the Census Bureau data, there are 1,311 total cable and other pay television service firms that operate throughout the year of which 1,180 have less than $10 million in revenue.[13] We address below each service individually to provide a more precise estimate of small entities.

**Cable Operators.** The Commission has developed, with SBA's approval, our own definition of a small cable system operator for the purposes of rate regulation Under the Commission's rules, a "small cable company" is one serving fewer than 400,000 subscribers nationwide.[14] We last estimated that there were 1,439 cable operators that qualified as small cable companies[15] Since then, some of those companies may have grown to serve over 400,000 subscribers, and others may have been involved in transactions that caused them to be combined with other cable operators. Consequently, we estimate that there are fewer than 1,439 small entity cable system operators that may be affected by the decisions and rules proposed in this Further Notice

The Communications Act, as amended, also contains a size standard for a small cable system operator, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1% of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed $250,000,000."[16] The Commission has determined that there are 68,500,000 subscribers in the United States Therefore, an operator serving fewer than 685,000 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all of its affiliates, do not exceed $250 million in the aggregate.[17] Based on available data, we find that the number of cable operators serving 685,000 subscribers or less totals approximately 1,450[18] Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed $250,000,000, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act

**Direct Broadcast Satellite ("DBS") Service.** Because DBS provides subscription services, DBS falls within the SBA-recognized definition of Cable and Other Program Distribution Services.[19] This definition provides that a small entity is one with $12.5 million or less in annual receipts.[20] There are four licensees of DBS services under Part 100 of the Commission's Rules Three of those licensees are currently operational Two of the licensees that are operational have annual revenues that may be in

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[13] Economics and Statistics Administration, Bureau of Census, U S Department of Commerce, 1997 Economic Census, Subject Series - Establishment and Firm Size, Information Sector 51, Table 4 at 50 (2000) The amount of $10 million was used to estimate the number of small business firms because the relevant Census categories stopped at $9,999,999 and began at $10,000,000 No category for $12 5 million existed Thus, the number is as accurate as it is possible to calculate with the available information

[14] 47 C F R § 76 901(e) The Commission developed this definition based on its determinations that a small cable system operator is one with annual revenues of $100 million or less *Sixth Report and Order and Eleventh Order on Reconsideration*, 10 FCC Rcd 7393 (1995)

[15] Paul Kagan Associates, Inc , Cable TV Investor, Feb 29, 1996 (based on figures for Dec. 30, 1995).

[16] 47 U S.C § 543(m)(2)

[17] 47 C F R § 76 1403(b)

[18] Paul Kagan Associates, Inc , Cable TV Investor, Feb 29, 1996 (based on figures for Dec 30, 1995)

[19] 13 C F R § 121 201, NAICS code 517510 (formerly 513220)

[20] *Id*

excess of the threshold for a small business.[21] The Commission, however, does not collect annual revenue data for DBS and, therefore, is unable to ascertain the number of small DBS licensees that could be impacted by these proposed rules DBS service requires a great investment of capital for operation, and we acknowledge, despite the absence of specific data on this point, that there are entrants in this field that may not yet have generated $12 5 million in annual receipts, and therefore may be categorized as a small business, if independently owned and operated.

**Home Satellite Dish ("HSD") Service.** Because HSD provides subscription services, HSD falls within the SBA-recognized definition of Cable and Other Program Distribution Services[22] This definition provides that a small entity is one with $12 5 million or less in annual receipts.[23] The market for HSD service is difficult to quantify. Indeed, the service itself bears little resemblance to other MVPDs HSD owners have access to more than 265 channels of programming placed on C-band satellites by programmers for receipt and distribution by MVPDs, of which 115 channels are scrambled and approximately 150 are unscrambled.[24] HSD owners can watch unscrambled channels without paying a subscription fee To receive scrambled channels, however, an HSD owner must purchase an integrated receiver-decoder from an equipment dealer and pay a subscription fee to an HSD programming package. Thus, HSD users include (1) viewers who subscribe to a packaged programming service, which affords them access to most of the same programming provided to subscribers of other MVPDs, (2) viewers who receive only non-subscription programming, and (3) viewers who receive satellite programming services illegally without subscribing Because scrambled packages of programming are most specifically intended for retail consumers, these are the services most relevant to this discussion.[25]

**Multipoint Distribution Service ("MDS"), Multichannel Multipoint Distribution Service ("MMDS") Instructional Television Fixed Service ("ITFS") and Local Multipoint Distribution Service ("LMDS").** MMDS systems, often referred to as "wireless cable," transmit video programming to subscribers using the microwave frequencies of the MDS and ITFS.[26] LMDS is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.[27]

In connection with the 1996 MDS auction, the Commission defined small businesses as entities that had annual average gross revenues of less than $40 million in the previous three calendar years[28] This definition of a small entity in the context of MDS auctions has been approved by the SBA.[29] The MDS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas ("BTAs"). Of the 67 auction winners, 61 met the definition of a small business MDS also includes licensees of stations authorized prior to the auction As noted, the SBA has developed a definition of small entities for pay television services, which includes all such companies generating

[21] *Id*

[22] 13 C F F § 121 201, NAICS code 517510 (formerly 513220)

[23] *Id*

[24] *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, 12 FCC Rcd 4358, 4385 (1996) ("*Third Annual Report*")

[25] *Id* at 4385

[26] *Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, 10 FCC Rcd at 9589, 9593 (1995) ("*ITFS Order*")

[27] *See Local Multipoint Distribution Service*, 12 FCC Rcd 12545 (1997) ("*LMDS Order*")

[28] 47 C F R § 21 961(b)(1)

[29] *See ITFS Order*, 10 FCC Rcd at 9589

$12.5 million or less in annual receipts.[30] This definition includes multipoint distribution services, and thus applies to MDS licensees and wireless cable operators that did not participate in the MDS auction. Information available to us indicates that there are approximately 850 of these licensees and operators that do not generate revenue in excess of $12 5 million annually Therefore, for purposes of the IRFA, we find there are approximately 850 small MDS providers as defined by the SBA and the Commission's auction rules

The SBA definition of small entities for Cable and Other Program Distribution Services, which includes such companies generating $12.5 million in annual receipts, seems reasonably applicable to ITFS.[31] There are presently 2,032 ITFS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in the definition of a small business.[32] However, we do not collect annual revenue data for ITFS licensees, and are not able to ascertain how many of the 100 non-educational licensees would be categorized as small under the SBA definition. Thus, we tentatively conclude that at least 1,932 licensees are small businesses

Additionally, the auction of the 1,030 LMDS licenses began on February 18, 1998, and closed on March 25, 1998 The Commission defined "small entity" for LMDS licenses as an entity that has average gross revenues of less than $40 million in the three previous calendar years.[33] An additional classification for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding calendar years.[34] These regulations defining "small entity" in the context of LMDS auctions have been approved by the SBA.[35] There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. On March 27, 1999, the Commission re-auctioned 161 licenses; there were 40 winning bidders. Based on this information, we conclude that the number of small LMDS licenses will include the 93 winning bidders in the first auction and the 40 winning bidders in the re-auction, for a total of 133 small entity LMDS providers as defined by the SBA and the Commission's auction rules

In sum, there are approximately a total of 2,000 MDS/MMDS/LMDS stations currently licensed Of the approximate total of 2,000 stations, we estimate that there are 1,595 MDS/MMDS/LMDS providers that are small businesses as deemed by the SBA and the Commission's auction rules.

**Satellite Master Antenna Television ("SMATV") Systems.** The SBA definition of small entities for Cable and Other Program Distribution Services includes SMATV services and, thus, small entities are defined as all such companies generating $12 5 million or less in annual receipts.[36] Industry sources estimate that approximately 5,200 SMATV operators were providing service as of December 1995.[37] Other estimates indicate that SMATV operators serve approximately 1.5 million residential

[30] 13 C F R § 121 201, NAICS code 517510 (formerly 513220)

[31] *Id*

[32] SBREFA also applies to nonprofit organizations and governmental organizations such as cities, counties, towns, townships, villages, school districts, or special districts, with populations of less than 50,000 5 U S C § 601(5)

[33] *See LMDS Order,* 12 FCC Rcd at 12545

[34] *Id*

[35] *See* Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau (FCC) from A Alvarez, Administrator, SBA (January 6, 1998)

[36] 13 C F R § 121 201, NAICS code 517510 (formerly 513220)

[37] *See Third Annual Report,* 12 FCC Rcd at 4403-4

subscribers as of July 2001.[38] The best available estimates indicate that the largest SMATV operators serve between 15,000 and 55,000 subscribers each Most SMATV operators serve approximately 3,000-4,000 customers. Because these operators are not rate regulated, they are not required to file financial data with the Commission Furthermore, we are not aware of any privately published financial information regarding these operators. Based on the estimated number of operators and the estimated number of units served by the largest ten SMATVs, we believe that a substantial number of SMATV operators qualify as small entities

**Open Video Systems ("OVS").** Because OVS operators provide subscription services,[39] OVS falls within the SBA-recognized definition of Cable and Other Program Distribution Services.[40] This definition provides that a small entity is one with $ 12 5 million or less in annual receipts.[41] The Commission has certified 25 OVS operators with some now providing service. Affiliates of Residential Communications Network, Inc. ("RCN") received approval to operate OVS systems in New York City, Boston, Washington, D.C and other areas. RCN has sufficient revenues to assure us that they do not qualify as small business entities. Little financial information is available for the other entities authorized to provide OVS that are not yet operational Given that other entities have been authorized to provide OVS service but have not yet begun to generate revenues, we conclude that at least some of the OVS operators qualify as small entities

**Electronics Equipment Manufacturers.** Rules adopted in this proceeding could apply to manufacturers of DTV receiving equipment and other types of consumer electronics equipment. The SBA has developed definitions of small entity for manufacturers of audio and video equipment[42] as well as radio and television broadcasting and wireless communications equipment[43] These categories both include all such companies employing 750 or fewer employees The Commission has not developed a definition of small entities applicable to manufacturers of electronic equipment used by consumers, as compared to industrial use by television licensees and related businesses Therefore, we will utilize the SBA definitions applicable to manufacturers of audio and visual equipment and radio and television broadcasting and wireless communications equipment, since these are the two closest NAICS Codes applicable to the consumer electronics equipment manufacturing industry However, these NAICS categories are broad and specific figures are not available as to how many of these establishments manufacture consumer equipment According to the SBA's regulations, an audio and visual equipment manufacturer must have 750 or fewer employees in order to qualify as a small business concern[44] Census Bureau data indicates that there are 554 U.S establishments that manufacture audio and visual equipment, and that 542 of these establishments have fewer than 500 employees and would be classified as small entities[45] The remaining 12 establishments have 500 or more employees, however, we are

[38] *See Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, 17 FCC Rcd 1244, 1281 (2001) ("*Eighth Annual Report*")

[39] *See* 47 U S C § 573

[40] 13 C F R § 121 201, NAICS code 517510 (formerly 513220)

[41] *Id*

[42] 13 CFR § 121 201, NAICS code 334310

[43] 13 CFR § 121 201, NAICS code 334220

[44] 13 CFR § 121 201, NAICS code 334310

[45] Economics and Statistics Administration, Bureau of Census, U S Department of Commerce, *1997* Economic Census, Industry Series – Manufacturing, Audio and Video Equipment Manufacturing, Table 4 at 9 (1999) The amount of 500 employees was used to estimate the number of small business firms because the relevant Census categories stopped at 499 employees and began at 500 employees No category for 750 employees existed Thus, the number is as accurate as it is possible to calculate with the available information

unable to determine how many of those have fewer than 750 employees and therefore, also qualify as small entities under the SBA definition Under the SBA's regulations, a radio and television broadcasting and wireless communications equipment manufacturer must also have 750 or fewer employees in order to qualify as a small business concern [46] Census Bureau data indicates that there 1,215 U S establishments that manufacture radio and television broadcasting and wireless communications equipment, and that 1,150 of these establishments have fewer than 500 employees and would be classified as small entities.[47] The remaining 65 establishments have 500 or more employees; however, we are unable to determine how many of those have fewer than 750 employees and therefore, also qualify as small entities under the SBA definition. We therefore conclude that there are no more than 542 small manufacturers of audio and visual electronics equipment and no more than 1,150 small manufacturers of radio and television broadcasting and wireless communications equipment for consumer/household use.

**Computer Manufacturers**. The Commission has not developed a definition of small entities applicable to computer manufacturers Therefore, we will utilize the SBA definition of electronic computers manufacturing According to SBA regulations, a computer manufacturer must have 1,000 or fewer employees in order to qualify as a small entity.[48] Census Bureau data indicates that there are 563 firms that manufacture electronic computers and of those, 544 have fewer than 1,000 employees and qualify as small entities [49] The remaining 19 firms have 1,000 or more employees We conclude that there are approximately 544 small computer manufacturers

**D. Description of Projected Reporting, Recordkeeping and other Compliance Requirements.** At this time, we do not expect that the proposed rules would impose any additional reporting or recordkeeping requirements However, compliance with the rules, if they are adopted, may require consumer electronics manufacturers to seek approval for content protection technologies and recording methods to be used in conjunction with demodulator products [50] These requirements will have an impact on consumer electronics manufacturers, including small entities. We seek comment on the possible burden these requirements would place on small entities. Also, we seek comment on whether a special approach toward any possible compliance burdens on small entities might be appropriate The proposed rules would also allow cable operators to encrypt the digital basic tier, however, we do not believe that this voluntary provision would have an impact on small entities.

**E. Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered.** The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others)· (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities, (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities, (3) the use of performance, rather than design, standards, and (4) an exemption from coverage of the rule, or any part thereof, for

[46] 13 C F R § 121 201, NAICS code 334220

[47] Economics and Statistics Administration, Bureau of Census, U S Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, Table 4 at 9 (1999) The amount of 500 employees was used to estimate the number of small business firms because the relevant Census categories stopped at 499 employees and began at 500 employees No category for 750 employees existed Thus, the number is as accurate as it is possible to calculate with the available information

[48] 13 C F R § 121 201, NAICS code 334111

[49] Economics and Statistics Administration, Bureau of Census, U S Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing. Electronic Computer Manufacturing, Table 4 at 9 (1999)

[50] *See Further Notice* at ¶¶ 61-65

small entities [51]

As indicated above, the *Further Notice* seeks comment on whether the Commission should adopt rules establishing an approval mechanism for new content protection and recording technologies to be used with demodulator products. Consumer electronics manufacturers may be required to seek such approval prior to implementing content protection and recording technologies in demodulator products We welcome comment on modifications of this proposal to lessen any potential impact on small entities, while still remaining consistent with our policy goals. The *Further Notice* also seeks comment on whether cable operators should be allowed to encrypt the digital basic tier in order to be able to give effect to the ATSC flag through cable operators' conditional access system While we do not believe that this rule change would have a potential impact on small entities because it would be voluntary in nature, we seek comment on whether a special approach toward any possible compliance burdens on small entities might be appropriate.

**Federal Rules Which Duplicate, Overlap, or Conflict with the Commission's Proposals.** None

[51] 5 U S C § 603(b)

## SEPARATE STATEMENT OF COMMISSIONER KATHLEEN Q. ABERNATHY

*Re* *Digital Broadcast Content Protection, Report and Order and Further Notice of Proposed Rulemaking, MB Docket 02-230 (adopted November 4, 2003)*

Today's decision is illustrative of the complex policy debates that arise as we move forward with the digital transition In this instance, the debate centers on potential piracy problems that arise when digital content is delivered by free over-the-air broadcast signals. Not surprisingly, content providers do not want their digital TV programs pirated and retransmitted over the Internet. Critics of the broadcast flag proposal, on the other hand, warn against placing too much control over technology choice in the hands of the studios Mindful of our ongoing obligation to speed the digital transition and to promote the viability of free over-the-air broadcasting in the digital age, we have navigated a solution that embraces protection and deters piracy without sacrificing innovation or frustrating consumer expectations.

I do recognize that there are costs, both actual and in terms of consumer expectations, that must be measured against the benefits associated with a broadcast flag solution. In this case, however, we have ensured that the costs imposed on consumers will be minimal Unlike encryption at the source, a broadcast flag solution will not render legacy devices obsolete and will not force consumers to purchase new or additional equipment to receive their broadcast programming. Consumers will be able to continue receiving broadcast programs over their existing television receivers In addition, existing recorders and playback devices will continue to work, and digital recordings made on legacy devices will play on future compliant machines.[52] Thus, we are accommodating to the greatest extent possible current consumer expectations and uses Furthermore, members of the consumer electronics industry have indicated that the costs associated with implementing the broadcast flag will be minimal. By protecting against digital piracy, we also encourage entertainment companies to deliver via free over-the-air broadcast its most valuable programs.

I am generally cautious when it comes to government prescribing technologies or putting too much control in the hands of one industry in making such determinations. I am able to support today's decision, however, because of the changes we have made to the way transmission and recording technologies are approved While we are asking for further comment on this issue, we set up on an interim basis a transparent, open and objective approval process that will promote the development of competition in the marketplace and foster innovation. I am hopeful that through this process and the final rules we adopt, new technologies will develop that will allow consumers flexibility in how they distribute content without allowing indiscriminate redistribution of broadcast television content over the Internet.

Finally, I have previously expressed concerns about whether we have jurisdiction to adopt a broadcast flag solution, or whether this is an issue best left for Congress. As a general rule, the Commission should be wary of adopting significant new regulations where Congress has not spoken. On balance, though, I believe that given the broad congressional direction to promote the transition to digital broadcasting, a critical part of that obligation involves protection of content that is transmitted via free over-the-air broadcasting I am hopeful that any court review of this decision can occur before the effective date of our rules

[52] I do recognize, though, that a recording made to a DVD on a new compliant device will not currently be able to be viewed on a legacy DVD player That recording, however, can be played on the compliant device, and the existing non-compliant DVD recorder will continue to both record content and playback content recorded on that machine As we note in the Order, moreover, this problem is not unique to the broadcast flag For instance, other changes to DVD technology, such as a transition to high definition DVD devices, will create format compatibility problems

**STATEMENT OF**
**COMMISSIONER MICHAEL J. COPPS**
**APPROVING IN PART, DISSENTING IN PART**

*Re Digital Broadcast Content Protection*

Striking a balance between consumers' expectations that they will be able to turn new technologies to their advantage and content producers' expectations that they will be able to protect the products of their creative genius is a real and growing challenge as we enter the digital age. There is broad agreement about the need to protect content in this new age if we are going to enjoy the full fruits of artistic creativity But there is the equally compelling need to guarantee that consumers are able to enjoy the expanded opportunities that accompany the development of liberating new technologies. Our world changes, old boundaries are blurred and then shattered, and new rules have to be developed that preserve traditional rights even as they accommodate new realities

Even though today's decision does not, cannot and should not settle these huge questions of public policy that must ultimately be decided in venues other than the FCC, the larger backdrop should be kept in mind as a reminder that we are at least approaching matters of great long-term significance to the American people An important goal of today's Commission action is to expedite the nation's long-delayed transition to digital television, but in a way that preserves a workable balance as we await longer-term guidance from Congress and the Executive Branch We attempt to achieve this goal today by resolving a long deadlock over technologies designed to provide digital broadcast content protection. Commission action here strikes me as warranted because we are fast approaching a situation wherein new technologies will provide arguably too much power to those who would infringe and pirate the rights of digital creativity. Such digital chaos benefits neither the creators nor the consumers of what is sure to be dramatic new content.

Given digital media's susceptibility to indiscriminate mass online distribution, content producers may have significantly greater incentives to broadcast high-value content if there are in place at least basic protection technologies If denied such protection in one medium (*e.g*, free, over-the-air broadcast television), they will migrate their new content to other media (*e g*, subscription cable television). Such a result would likely discourage new digital content in the broadcast medium and also retard the statutorily-mandated transition to digital television Neither outcome is acceptable

But I am also guided by the need to protect consumers in our quest to encourage digital content and to expedite the digital transition The reason we are promoting digital television, after all, is to benefit consumers, not companies Granting a small set of companies the power to control all digital video content through a government-mandated technology in order to promote digital television is neither necessary nor wise. A broadcast flag mandate that lacked adequate protections and limits would be reprehensible public policy

We have worked to avoid this danger with today's Order. Our decision is not ideal. No one will walk away with everything on their wish list What we have instead is an honest attempt at a workable compromise that responds to the concerns raised by multiple commenters. We afford at least some level of content protection. We preserve a balance between the rights of consumers and the rights of creative content producers And we resolve one challenge attending the digital television transition even as we await further guidance on the larger policy framework from Congress and the Executive Branch.

This Order is substantially different from the proposal originally submitted to the Commission. And I appreciate the constructive dialogue among my colleagues that has allowed us to reach this decision The item we adopt today is better balanced, more sensitive to the concerns raised by consumer groups. and supportive of multiple technologies and open processes for product certification. The

creators of copyrighted works are provided tools and processes with which to protect their intellectual property in the digital age Consumers should reap the benefits of significantly more digital content on their television receivers Tens of millions of American households depend upon free-over-the-air broadcast for their television reception and a central purpose of this decision is to ensure that they do not become second-class consumers of second-class content

This item has been improved so that competition between protection technologies will hopefully preserve, for the most part, consumers' reasonable expectations. Consumers have a right to expect that technological advances will afford them expanded opportunities generally, and that the freedom and vitality of digital technology will open up new options for the ways in which they can receive and utilize new products and services I discuss below those places wherein I believe we fail to protect consumer interests

I am pleased that this Order encourages openness and competition in the digital broadcast flag system If only one protection technology was to be available to consumers in the future, or if one technology was granted a first-mover advantage allowing it to entrench itself so firmly that new and better technologies are given no chance, we would have an intolerable result Consumers would be forced to use a technology not because it provides consumer options or preserves fair use, but because they have no choice Corporate interests would have trumped consumer interests. Reasonable uses of content by viewers could -- probably would -- be restricted, costs would rise and technology innovation would be hindered I believe that today's item, although not perfect, creates an opportunity wherein consumers will have a choice of user-friendly digital content protection systems and wherein the reality of competition will encourage content providers and equipment manufacturers to develop technologies that allow reasonable consumer uses of programming such as copying, recording, and sending digital content securely over the Internet A technology that blocks reasonable personal use of digital content will not be chosen by consumers Nor will a technology that hampers innovation be accepted by the manufacturers of consumer electronics products.

So the fact that today's Order now allows multiple firms to have many different technologies that meet our rules was critical to our decision We reject the notion that one industry segment should have gatekeeper control over digital content protection Instead, we seek to establish a streamlined, open approval process with a neutral arbiter based on objective criteria. We seek multiple interoperable technologies that will promote competition and consumer choice We seek to preserve reasonable and flexible consumer expectations and uses. And we seek to avoid stranding legacy equipment that must be replaced to receive protected content.

Words written in a Commission Order will not alone guarantee success We must remain vigilant during the interim procedures established today and work expeditiously to develop a longer term process that includes clear technical criteria with a transparent road to approval. That is one of the principal purposes of the Further Notice that we approve today As we move forward, we must also be careful not to chill development of software solutions generally, particularly for beneficial purposes such as software defined radio.

The competition that we build into the system and the changes from the original proposal allow me to support much of this Order. But I must dissent in part because I believe that we fail to protect consumer interests in important parts of the decision

I dissent in part, first, because the Commission does not preclude the use of the flag for news or for content that is already in the public domain. This means that even broadcasts of government meetings could be locked behind the flag. Broadcasters are given the right to use the public's airwaves in return for serving their communities. The widest possible dissemination of news and information serves the best interests of the community We should therefore be promoting the widest possible dissemination of news

and information consistent, of course, with the copyright laws And neither the FCC nor the broadcast flag should interfere with the free flow of non-copyrightable material. As discussed above, this Order attempts to strike a balance between preserving consumers' reasonable and flexible uses and permitting content providers a technological means to protect their copyright. But on the scale of the public interest, we must accord great weight to enabling lawful consumer and educational use of content when we are talking about something that goes to the core of America's public discourse and its civic dialogue. I understand the arguments of those who caution that precluding the flag for news and information could entail some difficult and sensitive decisions about what constitutes news and public information and what does not. Even if we are confronted with some difficult decisions, I would rather attempt the difficult than deny the free flow of news and information the widest possible dissemination.

Second, I dissent in part because the criteria we adopt for accepting digital content protection technologies fail to address some critical issues For example, we do not expressly consider the impact of a technology on personal privacy Improper use of the technologies could arguably allow such things as tracking personal information The broadcast flag should be about protecting digital content, not about tracking Americans' viewing habits. Protecting personal privacy is too important to leave to chance. We should state explicitly that we will consider this issue in the approval process and what action we would take if some approved technologies collect information about users and their viewing habits. I believe the Commission will be forced to address this anon, it would have been far preferable to do so here.

As a final matter, I note that I vote for today's Order with the understanding that it will not affect the rights or remedies available under our nation's copyright laws and cognizant that it is Congress that ultimately sets national policy in this critical and sensitive area.

Again, my thanks to the Bureau for working through an immensely complex and controversial proceeding and to my colleagues for their spirit of dialogue and cooperation that permitted us to achieve a satisfactory outcome today. We still have much to do in working through the implementation of today's Order and developing answers to the many "going forward" questions raised in the further notice. I urge all interested parties – and they are, as we know, many – to participate fully as we attempt to develop policies and procedures for moving ahead in an area wherein about the only certain thing is change.

**STATEMENT OF**
**COMMISSIONER JONATHAN S. ADELSTEIN**
**APPROVING IN PART, DISSENTING IN PART**

*Re Digital Broadcast Content Protection, Report and Order and Further Notice of Proposed Rulemaking, MB Docket 02-230*

Today's action presents a difficult and complex challenge. It is no small matter to require for the first time a content protection system for free broadcast television delivered over the public airwaves. Presented, as we have been, with a perceived threat that stands to undermine the very broadcast system that has benefited our society since its inception in 1927, I am willing to take that bold step. And being a firm believer in technological innovation, I believe this step can be done in a way that benefits all and ushers in a new and innovative era of digital television

But this step deserves careful consideration and broad public debate I dissent in part, as I do not believe we have fully achieved our goal of creating an effective and appropriately tailored pro-consumer digital broadcast television protection regime

Although we have recently endorsed a copy protection system for cable plug-and-play devices, we should not automatically assume that such a model should apply directly in the broadcast context. Instead, we should start by taking a step back and examining the nature of broadcast television and the implications of requiring a content protection regime. Indeed, not all consumers have the desire or ability to afford cable or other pay television services. These are the very consumers who may find it difficult to replace equipment as content protection technologies change over time Yet, these are also the people who would benefit the most from high value content being available on the public airwaves It is these stakeholders whose interest is foremost in my mind as I analyze today's Order.

This item confronts us with the current conditions facing the entertainment industry. Without question, the indiscriminate mass redistribution of copyrighted works over the Internet may well violate our nation's copyright laws and strikes at the core economic equation for creators Such redistribution is happening today with analog and downresolutioned entertainment content. While the entertainment industry acknowledges that the actual economic threat attributable to the widespread indiscriminate sharing of digital television files is not imminent, they ask us to act today as a precaution for the future. They say without protection, high value content will not be made available on the broadcast medium. Given the circumstances and the potential harm to creators, it is appropriate to offer some baseline protection.

At the same time, our action should not give content providers a sense of complacency to avoid actively seeking out new and evolving business models that embrace exciting new technologies and unleash opportunities for eager consumers. There is no telling what effect the prominent offering and marketing of lawful and affordable Internet-based alternatives could have on offsetting piracy, particularly in light of recent efforts to step up consumer education and enforcement.

Taking preemptive action to impose a mandated content protection regime inherently carries some risk It is well known that the entertainment industry in the past has feared technological advances that have matured to the benefit of their industry We must be careful not to cut off through preemptive regulation innovation that would lead to products and technologies that benefit consumers, manufacturers, and the creative community alike

I have confidence that if we do this right, a digital broadcast content protection system can carry out this vision and become a winning solution for all I appreciate the willingness of my colleagues and

the Bureau to engage in a constructive dialogue on the implications of various proposals I believe today's result is better because of that dialogue. I continue to have concerns with certain aspects of this decision, which I outline below.

Today we put in place a regime to afford basic protection against the mass indiscriminate online redistribution of digital television content Our action makes several important improvements over some proposals that were initially offered Most notably, we have taken steps to assure that no single technology or set of companies is given a government endorsement to control all digital television reception and downstream distribution and recording Our procedures ensure that no industry segment has veto power over the approval of technologies for use with the flag. As we seek further comment on a long-term technology approval process, we have sought to establish interim procedures that are open and transparent We have specified that the initial approval of technologies will be pursuant to functional requirements and a non-exhaustive list of objective criteria, without providing any entity a potentially dangerous first-mover advantage. Recognizing the steady convergence of computing and consumer electronics equipment in the home, our procedures are not intended to provide a regulatory advantage to anyone.

As technologies come forward for approval, I will pay particular attention to the competitive impact and the manner in which the content protection technology binds other downstream networking or recording technologies, and the impact of the particular authentication method on consumers and their privacy protections. Given the potential use of licensing terms to stifle competition, I expect licenses will be made available on fair, reasonable and nondiscriminatory terms, and will contain adequate dispute resolution procedures where objections arise. Should any one technology become the *de facto* standard for all digital television equipment, a closer examination by the Commission may be required.

It is my fervent hope that a variety of strategies and technologies will be deployed to help reach our ultimate goal of preserving high value content on broadcast television while providing maximum interoperability, portability, and ease of use for consumers Consumers will benefit from broad choice among competing interoperable content delivery and protection technologies, as manufacturers can be expected to build the products most likely to be embraced by consumers I would be concerned if technologies came before us that presumed that every consumer engaged in unlawful redistribution or that restricted or required a payment for legitimate activities that consumers do today.

Nor should the current analog world necessarily be the model for what consumers can reasonably expect to do in a digital world We are undertaking the digital television transition to benefit consumers and usher in opportunities for new and innovative ways consumers can watch, record and enjoy television A digital world is likely to accommodate more consumer uses of content that do not run afoul of the copyright laws, and as-yet-undetermined innovative features for time and space shifting, excerpting, and transferring content lawfully. We have no way of knowing who or what will be the next TiVo-like innovation to come forward and be enthusiastically embraced by consumers.

My fear with today's action is that one technology could become the gatekeeper across various communications platforms and could curtail technological innovation. That one technology, for example, could bind consumers to watch content at particular times, on particular devices, or subject to other terms and conditions that are more than a "speed bump" in a consumer's viewing and enjoying of digital television Should that occur, consumer frustration and backlash is likely, and would serve neither product manufacturers nor the entertainment industry Another fear of mine is that consumers, reporters, libraries, educators, the disabilities community, or other entities who today use copyrighted material in numerous lawful ways without the prior permission of the copyright owner, will be subjected to a system of preapproval or payment for the continued exercise of those legally protected uses. Worse yet, that the resulting technologies could intrude upon the personal privacy of consumers by collecting information about users or their viewing habits

Thousands of people contacted us and urged us not to take this preemptive action. Many consumers are concerned about the effect on their use and enjoyment of television, as well as their personal privacy. Given the possibility that the Digital Millennium Copyright Act might apply, content protection technologies have the potential to override lawful uses of digital content. With the case-specific and evolutionary nature of fair use, it is a hard concept to define technologically and not impact it legally. Yet the Commission has no authority to do the latter.

Under the regime adopted today, the Commission has not yet examined the full impact of any particular content protection technology. Provided alternatives exist, a technology that unduly restricts reasonable personal use of television content is not likely to be embraced by consumers. On the other hand, we can expect consumers to gravitate toward technologies that preserve flexible consumer uses of digital content By locking down content too tightly or imposing too great a cost on consumers, consumer adoption suffers, resulting in manufacturers losing incentives to innovate and the entertainment industry failing to benefit from new channels for content delivery. For this reason, I expect technologies will come forward that will preserve consumers' reasonable expectations, including the secure distribution of broadcast television excerpts or files over the Internet in a manner consistent with copyright law. In the end, I hope our adoption of a broadcast flag protection regime does not end up costing consumers greatly, through direct expense, reduced functionality of legacy devices, or the loss of innovative ways of watching, recording, or using digital television

Everyone benefits if consumers embrace and invest in digital television equipment. I would not want to see our adoption of the flag slow consumer acceptance of the digital transition or discourage computer developers from enabling the reception and downstream use of digital television through computing hardware and software solutions To the extent that today's action adds to the complexities of buying digital television equipment or home networking solutions, I encourage all parties to work with retailers to increase consumer awareness

I would have preferred to step gradually into this delicate space. I am concerned, for instance, that our action today will adversely affect accountability of the broadcast media. Despite technological advances, the public airwaves are still limited in the number of interference-free channels that can broadcast in each community. Adding a content protection regime that restricts the flow of digital television content could very well lead to less public accountability of what is broadcast over the air For example, absent a mandated content protection regime, consumers might have been in a position to e-mail the Commission an excerpt of a show they believe is in violation of our indecency rules. It remains unclear whether consumers can do so after today's action

I dissent in part because I believe we fail to protect the public interest in some key ways. First, I must dissent from the unlimited scope of today's protection regime. The Order does not rule out the use of the flag for content that is in the public domain The flag was presented as a means of preventing the illegal mass redistribution of digital broadcast content over the Internet. By not limiting use of the flag only to copyrighted works, I believe our scope not only exceeds the purposes for which we take preemptive action but also fails to reflect the record before us of the perceived threat and potentially supersedes the balance of copyright law While the item professes not to affect copyright law, by mandating a technological protection regime that can be used to restrict the flow of content that is in the public domain, or is not subject to copyright protection for other reasons, I am not convinced that we have adhered to our well-meaning pronouncements Presumably, there is some greater public good in the wide dissemination of non-copyrightable works or works for which the copyright protection has expired. If the barrier to the unleashing of high value content on digital broadcast television is Internet piracy, then I fail to see how a regime that could end up locking up public domain or non-copyrightable works is carefully focused to achieve that result

Nor do I take lightly a government-required protection regime that could restrict the free flow of news or public affairs programming which is at the heart of public discourse in our society Our country has a long history of promoting widespread public access to broadcast television In return for the free use of the spectrum, broadcasters are expected to serve their local communities Consistent with copyright law, the wider the dissemination of news and public affairs programming, the better our communities and our democracy are served The lawful consumer and educational use of content for scholarship, commentary, criticism, teaching, research, or other socially beneficial purposes should not be hindered I see little threat to content creators from a parent e-mailing to family members and friends a local television news clip of a son or daughter receiving a community service award, or a teacher choosing to show his or her classroom a rebroadcast of a space shuttle launch using an Internet connection

Nor do I see a persuasive reason to restrict the free flow of political speech which yields important societal benefits. By subjecting, say, the State of the Union address to mandated redistribution control technologies, have we not undermined a core value of our society? I search in vain for record support or a reason to lock up political speech from widespread distribution Because I believe the Order's boundless scope insufficiently addresses these values, I dissent

I also dissent to the failure of our interim criteria for examining digital content protection technologies to address important consumer issues I would have explicitly indicated that the Commission will consider the impact of a technology on personal privacy and not accept any technology that intrudes too greatly into this space While we are free to examine privacy implications under our non-exhaustive list of criteria, given the importance of improper use of information about consumers' viewing habits, I would have made our intention to protect consumer privacy explicit and unmistakable.

By going forward with today's adoption of a broadcast flag regime to address a perceived threat, the Commission could have put in place a way to evaluate whether we are achieving the goal that underlies our regulatory action – the availability of high value content on free over-the-air broadcast television Such efforts would benefit the Commission should the flag be the just the first in a series of requests to mandate even further content protection measures

Content providers have raised a real concern that the threat of indiscriminate online redistribution of digital television content will hold back high value content from our nation's public airwaves. By providing some basic assurance that the high value content that is broadcast over digital television will not be widely and indiscriminately redistributed online, we give greater incentive for content producers to make that content available on free over-the-air television

Not many people a decade ago foresaw the Internet's rapid evolution into a tool of consumer empowerment for both legitimate and harmful uses As we take steps to protect free over-the-air digital broadcast television against the powers of the Internet, we must be cautious, for the sake of consumers and the entertainment industry itself, not to trample its lawful use or inadvertently stifle the next innovative distribution model that could revolutionize the entertainment industry